

Section (b) - Amendments to the Claims

Claim 1 (previously withdrawn)

Claims 2-14 (cancelled)

Claim 15 (currently amended): A system for supplying hyperbaric oxygen to a biological entity, said system comprising:

a vessel capable of enclosing said biological entity and providing receiving and maintaining said a hyperbaric oxygen environment, said vessel having an inlet for receiving said hyperbaric oxygen into a sealed interior of said vessel; a pressure gauge, and a relief valve and enclosing said biological entity;

a pressurized gas source for supplying said hyperbaric oxygen to the oxygenator and the interior of the vessel;

a high surface area oxygenator for receiving said hyperbaric oxygen;

a perfusate for absorbing said hyperbaric oxygen within said oxygenator;

a fluid delivery tube attached to said oxygenator; and

a high pressure pump to circulate said perfusate,

whereby oxygenated perfusate is delivered under a sustained pressure environment greater than one atmosphere absolute and up to a predetermined maximum pressure to said biological entity through said fluid delivery tube.

Claim 16 (previously presented): The system as defined in Claim 15, further including a metabolic supplement, whereby said metabolic supplement is added to said perfusate for delivery to said biological entity.

Claim 17 (previously presented): The system as defined in Claim 16, further including means for monitoring the effect of said metabolic supplement on said biological entity.

Claim 18 (previously presented): The system as defined in Claim 15, wherein said oxygenated perfusate contains at least 4.5 volume percent oxygen.

Claim 19 (previously presented): The system as defined in Claim 15, further including a temperature control unit whereby the temperature of said perfusate and said biological entity can be regulated from approximately 0 degrees centigrade to approximately 40 degrees centigrade.

Claim 20 (previously presented): The system as defined in Claim 15, wherein said perfusate contains biological entity waste products and said system further comprises a biological filter for removal of said biological entity waste products.

Claim 21 (previously presented): The system as defined in Claim 15, further including an open perfusate container for holding said biological entity and a quantity of said perfusate within said vessel wherein said system is maintained at a pressure greater than one atmosphere absolute.

Claim 22 (cancelled)

Claim 23 (currently amended): The system as defined in Claim 15, further including a negative pressure means for circulating said perfusate from said biological entity to said oxygenator, wherein said system functions in a ~~manner similar to natural vascular physiology~~ manner.

Claim 24 (currently amended): The system as defined in Claim 23, further including at least one access port in said means for circulating said perfusate wherein said access port functions in a ~~manner similar to access to a natural venous system~~ manner.

Claim 25 (previously presented): The system as defined in Claim 24, wherein said at least one access port permits the addition of drugs or pharmaceutical agents.

Claim 26 (previously presented): The system as defined in Claim 24, wherein said at least one access port permits the extraction of a quantity of said perfusate, wherein waste products may be removed from said perfusate and said perfusate may be analyzed.

Claim 27 (previously presented): The system as defined in Claim 24, wherein said at least one access port permits the addition of a quantity of said perfusate, wherein waste products may be diluted.